Aster curtus Cronq.

white-top aster

Asteraceae (Aster Family)

Status: State Sensitive, USFWS Species of Concern
Rank: G3S3

General Description: Perennial herb with generally unbranched stems topped by a cluster of flowering heads, typically found in colonies of 50-200 or more shoots, spreading vegetatively by rhizomes. Individual flowering shoots are typically 5-10 inches tall with entire, alternate leaves evenly distributed along the stem. The largest leaves are typically about an inch long. Non-flowering shoots are generally less than half as tall as flowering shoots. Flowers are inconspicuous, occurring in 5-20 small heads. The white ray flowers are not of sufficient size to be noticeable without close inspection.

Identification Tips: *A. curtus* differs from other species of *Aster* and *Erigeron* that occur in similar habitats by the tight terminal cluster of flower heads with essentially inconspicuous ray flowers. *A. curtus* is distinctive in its habit of forming large colonies by means of rhizomes. Only 10-30% of the shoots in typical colonies bear flowering heads.

Phenology: Shoots emerge and are visible by April. Flowering takes place in July and August, followed by dispersal of seeds in September and October.

Range: The species is restricted to the Willamette Valley-Puget Lowlands, from near Eugene, Lane County, OR, north through the Willamette Valley, to Thurston, Pierce, and Island counties, WA, to the southeastern portion of Vancouver Island, B.C. It occurs in the Olympic Peninsula and Southwest Washington, and Puget Trough physiographic provinces.

Habitat: The species occurs in open grassland habitats in the lowlands of the Willamette Valley-Puget Trough, at elevations of 100 to 550 feet above sea level in relatively flat areas. Most populations occur in gravelly, glacial outwash soils. In the southern and northern portions of its range, it occurs in clayey and exposed bedrock habitats respectively. Habitats are seasonally mesic but somewhat moisture stressed during late summer. In the Puget Trough, *A. curtus* habitats are generally dominated by Idaho fescue. Douglas fir and/or Oregon oak generally are

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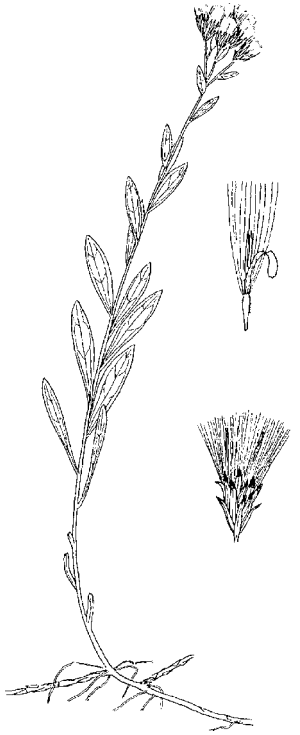
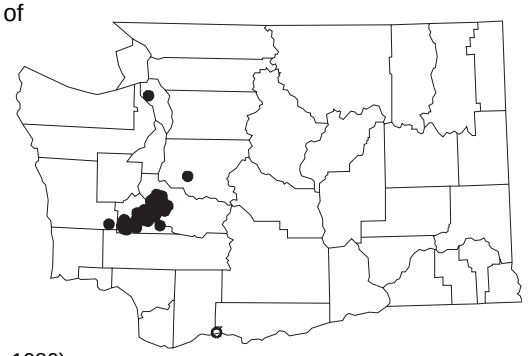


Known distribution of *Aster curtus* in Washington



● Current (1980+)
◎ Historic (older than 1980)

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Birdie Davenport

Reid Schuller

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Habitat (continued)**:** present or border the grassland openings. Common shrubs include snowberry (*Symphoricarpos albus*) and serviceberry (*Amelanchier alnifolia*). Native herbaceous species include goldenrod (*Solidago* sp.), Oregon sunshine (*Eriophyllum lanatum*), early blue violet (*Viola adunca*), balsamroot (*Balsamorhiza deltoidea*), and yarrow (*Achillea millefolium*). Non-native species include Scot's broom (*Cytisus scoparius*), hairy cat's ear (*Hypochaeris radicata*), St. John's wort (*Hypericum perforatum*), and bentgrass (*Agrostis tenuis*).

Ecology: Fire is thought to have played a major historical role in the maintenance of the grassland habitats occupied by *A. curtus.* These habitats are subject to invasion by Douglas fir. Soil disturbance may also be required for, or at least enhance, seedling establishment and clonal expansion. Established individuals can apparently persist under shrub cover for several years.

State Status Comments: There are over 80 known occurrences in Washington, but many are very small, occur in fragmented and isolated habitat patches, and are under ongoing threats.

Inventory Needs: Additional inventory throughout the species' range should be conducted. Small, isolated populations are likely to continue to be discovered.

Threats and Management Concerns: The most significant threat to *A. curtus* is the invasion of its habitat by Douglas fir and Scot's broom. Mechanical removal and prescribed fire are two management tools that should be considered for control of both of these species.

References:

Hitchcock, C.L., A. Cronquist, M. Ownbey, and J.W. Thompson. 1955. *Vascular Plants of the Pacific Northwest, Part 5: Compositae.* University of Washington Press, Seattle. 343 pp.

Clampitt, C.A. 1993. Effects of Human Disturbances on Prairies and the Regional Endemic *Aster curtus* in Western Washington. Northwest Science 67(3): 163-169.

Clampitt, C.A. 1987. Reproductive biology of *Aster curtus* (Asteraceae), a Pacific Northwest endemic. Amer. J. Bot. 74(6): 941-946.

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